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GROWTH AND PROFITABILITY OF BANKING IN MONTANA

By

Alistair R. MacMillan

B. S., University of Montana, 1968

Presented in partial fulfillment of the requirements for the degree of

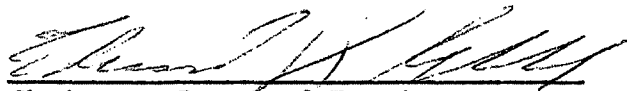
Master of Business Administration

UNIVERSITY OF MONTANA

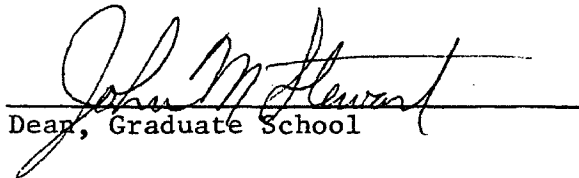
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Approved by:



Chairman, Board of Examiners



Dean, Graduate School

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CHAPTER I

INTRODUCTION

This paper presents an evaluation of the growth and profitability of the commercial banking industry in Montana during the twelve year period ending December 31, 1967, i.e., the calendar years 1956 through 1967. Growth and profitability are the two most important aspects of banking performance. The study and analysis provide the basis for conclusions regarding the present state of and expectations for the commercial banking industry of Montana.

There were three reasons for choosing 1956 as a starting point. First, the period overlaps very recent information and the analysis of information of the not too distant past. Second, the period has seen competing financial institutions, notably credit unions and savings and loan institutions, grow to become strong competitors in the market for financial services. Third, the period includes economic recessions as well as the economic up-trend of most of the 1960's.

The most significant characteristic of the Montana commercial banking system is that it is composed, for the most part, of very small unit banks. There were 132 banks in Montana at the end of 1967.¹ These banks are scattered throughout the state and ranged in

¹Federal Reserve Bulletin, (April 1957 and April 1968.)

total resources from \$986 thousand to \$81 million.² In Idaho, a state similar in many ways to Montana but one which allows branch banking, there were only 26 banks, the two largest having resources in excess of \$300 million.

The particular form of bank structure in the State of Montana (Montana is one of 11 unit banking states in the nation)³ has been the result, as in any state, of an evolutionary process. Since and even before Montana became a state the forces of evolution that have shaped the banking system have been primarily the economic conditions of the state, the banking legislation which has been enacted, and the leadership provided by the prominent bankers.⁴

Of great importance to commercial banking in Montana is the rapid rate of growth which has been experienced by competitors of commercial banking in its role as a financial intermediary. The growth rate experienced by these other financial intermediaries is evidence of their ability to compete with commercial banks, and raises questions about the future growth which Montana's commercial banking industry may expect. The growth of two of these competing

²Montana, Office of the Superintendent of Banks, Total Resources - Montana Banks, (Helena, Montana, December 30, 1967).

³L. G. Farwell et al, Financial Institutions, (Homewood, Illinois: R. D. Irwin, Inc., 1966), Table 6-2, p. 137.

⁴W. E. Koenker, Post-War Banking Trends in North Dakota, (North Dakota Economic Studies No. 3; Grand Forks, N.D.: Bureau of Business and Economic Research, College of Business and Public Administration, University of North Dakota, August, 1955).

institutions, savings and loan associations and credit unions, is compared to the growth of commercial banking. During the twelve years of the study, i.e., through the end of 1967, savings and loan resources increased by 60.08 percent, credit union resources increased by 69.06 percent, and commercial banking resources increased by a much smaller 45.4 percent.

In considering the present condition of and prospects for Montana banking two questions must be examined: What has been the trend of bank profits over the recent past, and how profitable are small banks relative to the largest banks in Montana and to banks in a branch-banking state and nationally? Both questions are particularly significant in Montana due to its unit system.

sparsely populated areas. On December 31, 1967, there were 132 banks in Montana. The total resources of these banks was just over \$1,425 million, few had resources of over 50 million dollars, and 115 banks had resources of less than 20 million dollars. Ten years previous to this, (December 31, 1958) there were 114 banks in the state with total resources of just over 874 million dollars. At that time there were eleven banks in the 20 to 50 million dollar resource range, one less than in 1967.⁸ In the neighboring state of Idaho, on the other hand, which is characterized by a branch banking system, the number of banks decreased during this time period from 28 in 1958 to 26 in 1967.⁹ Total resources of Idaho banks increased from 686 million to 1,154 million dollars.¹⁰ (See Graph No. 1) The relative increases for the two states and the nation are as indicated below:

Relative Increase in Resources

| | <u>Montana</u> | <u>Idaho</u> | <u>U.S.A.</u> |
|--------------|----------------|--------------|---------------|
| 1958 to 1967 | 38.7% | 40.7% | 46.7% |

⁸Office of the Superintendent of Banks, Total Resources - Montana Banks.

⁹Federal Reserve Bulletin, (April 1959 and April 1968).

¹⁰U.S., Federal Deposit Insurance Corporation, Assets Liabilities and Capital Accounts, Commercial and Mutual Savings Banks, (Washington, D.C.), Assets of All Insured Banks by State.

These figures show that, in general, banking resources in Montana have grown much as they have in Idaho and the nation as a whole. The year-by-year relative increases in banking resources in Montana have been erratic during the 12-year period however, (See Graph No. 2) and there has been no consistent relationship between the increases in resources nationally or the increases of resources in Idaho. The graph indicates the close ties that exist between banking growth and the state of the national economy.¹¹ Thus it can be implied that the growth pattern of Montana banking resources may have been the result of the level of Montana's economic activity.

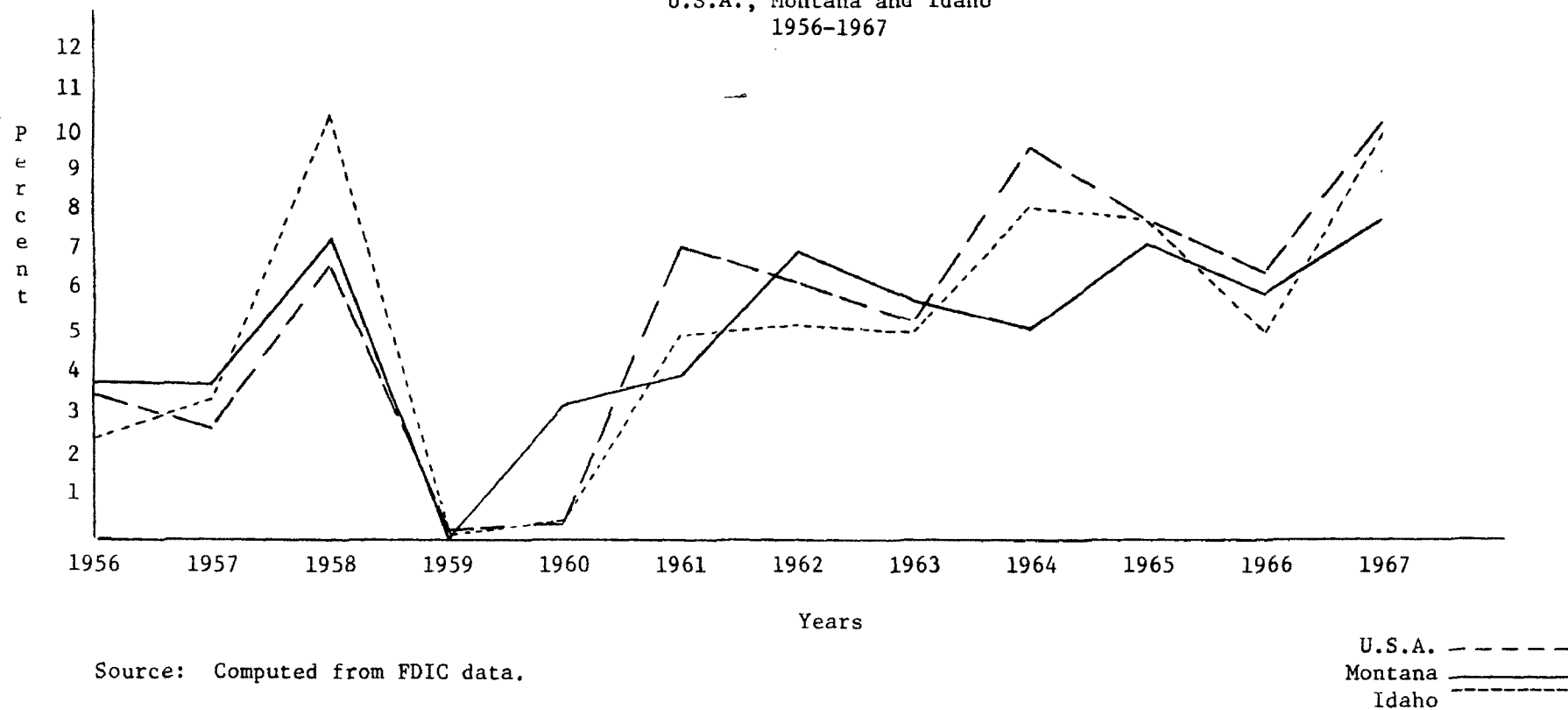
The data in Graph No. 3 indicate that the per capita growth of resources in Montana has generally followed the national trend but has not kept pace with it. The graph also indicates that the growth of banking resources in Montana has at least kept pace with, if not exceeded, the growth of resources in Idaho.

The reason the growth of banking resources in Montana was somewhat less than resource growth of banks nationally can perhaps be attributed to the large gains made by savings and loan institutions and credit unions in the Mountain and Pacific coast regions of the United States. Over a 10-year period (from 1950 to 1960) the average rate of growth of savings and loan institutions in the United States was 15.6%. As indicated by the chart below, the Pacific and Mountain

¹¹Graph No. 5 of the appendix indicates the percent increases in GNP for the 12-year period under study. Notice the similarity in the graphs. Percent increases in, for example, 1956 banking resources appear to indicate the trend of increases of 1957 GNP.

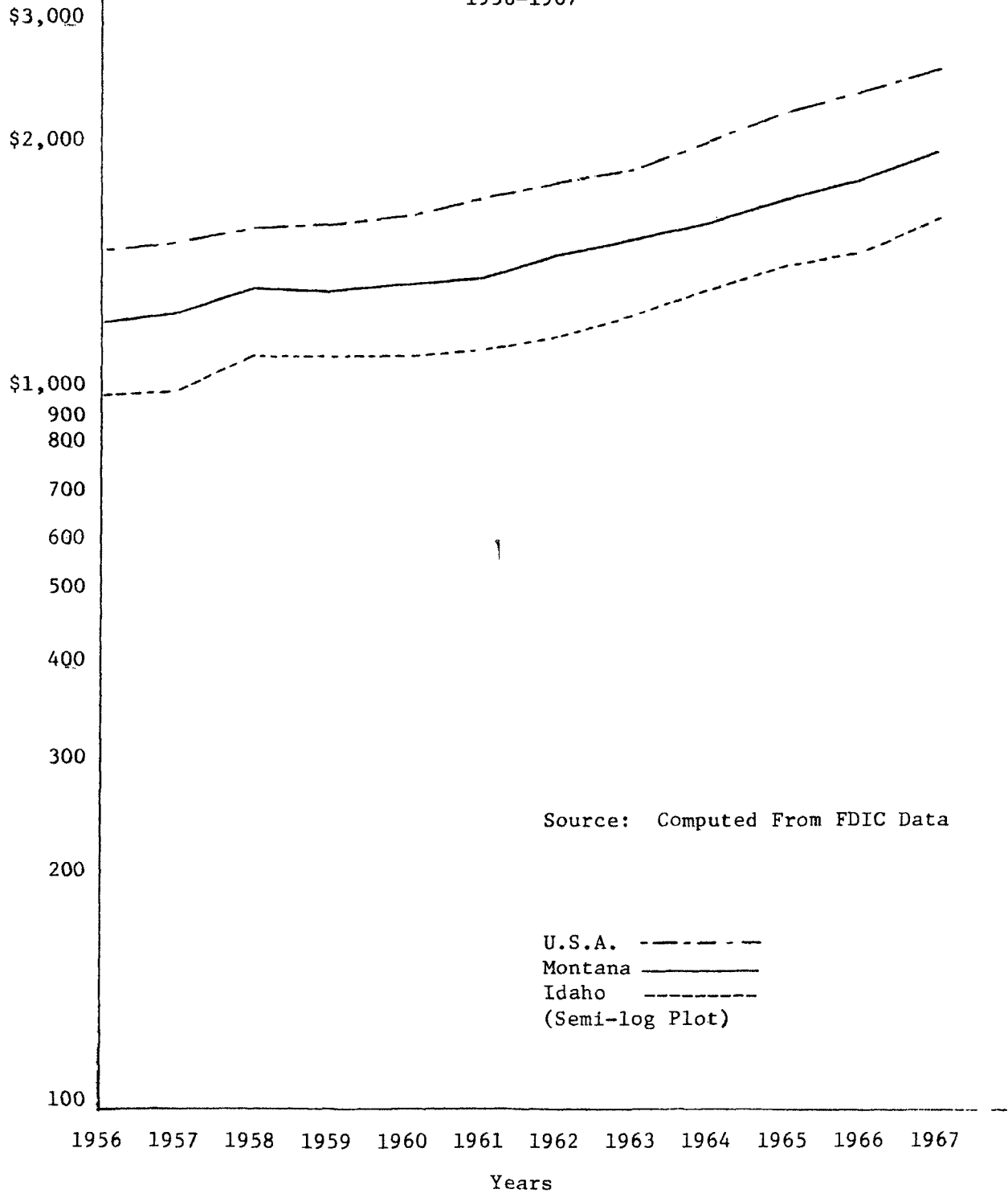
GRAPH NO. 2

Percent Increases in Insured Commercial Bank Resources
U.S.A., Montana and Idaho
1956-1967



GRAPH NO. 3

Per Capita Resources - Insured Commercial Banks
U.S., Montana, Idaho
1956-1967



regions showed the greatest average increase in assets over this period; 18.1 and 20.4% respectively.

Growth of Savings and Loan Associations

By Region

1950 - 1960

| <u>Region</u> | <u>Total Assets</u> | | <u>Percent Increase</u> | <u>Avg Annual Rate of Growth (Percent)</u> |
|--------------------|---|-----------------|-------------------------|--|
| | <u>Millions of Dollars</u> <u>1950</u> | <u>1960</u> | | |
| New England | \$ 1,390 | \$ 3,437 | 147% | 9.6 |
| Mid-Atlantic | 3,268 | 11,575 | 254 | 13.4 |
| South Central | 2,160 | 10,135 | 372 | 16.8 |
| East North Central | 4,945 | 18,974 | 284 | 14.4 |
| East South Central | 532 | 2,400 | 351 | 16.2 |
| West North Central | 1,297 | 5,701 | 340 | 16.1 |
| West South Central | 918 | 4,514 | 292 | 17.4 |
| Mountain | 409 | 2,131 | 421 | 18.1 |
| Pacific | 1,966 | 12,572 | 539 | 20.4 |
| | <u>\$16,885</u> | <u>\$71,489</u> | <u>323%</u> | <u>15.6%</u> |

Source: Secondary, The Savings and Loan Business. Its Purposes Functions, and Economic Justification, Leon T. Kendall, A Monograph Prepared for the Commission on Money and Credit. Prentice Hall, Inc. Primary Source: U.S. Savings and Loan League.

This is a good indication of the effect this institution is having on the resource growth of commercial banks in Montana.

The information found in Graph No. 4 has been calculated from State Board of Health Population Estimates and bank resource data published by the Superintendent of Banks of the State of Montana.¹²

¹²Population estimates published by the State Board of Health are estimates for which the primary user is the Board of Health. The estimates are made to provide a basis for the allocation of Board of Health services to Montana counties. For this reason they may be suspect but are the only county population estimates available for the State.

GRAPH NO. 4
Growth in Resources Per Capita
State Economic Areas of Montana*
1956-1967

P
e
r

C
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p
i
t
a

R
e
s
o
u
r
c
e
s

\$4,000

3,000

2,000

\$1,000

900

800

700

600

500

400

300

200

*Data Not Available for Years 1956-57

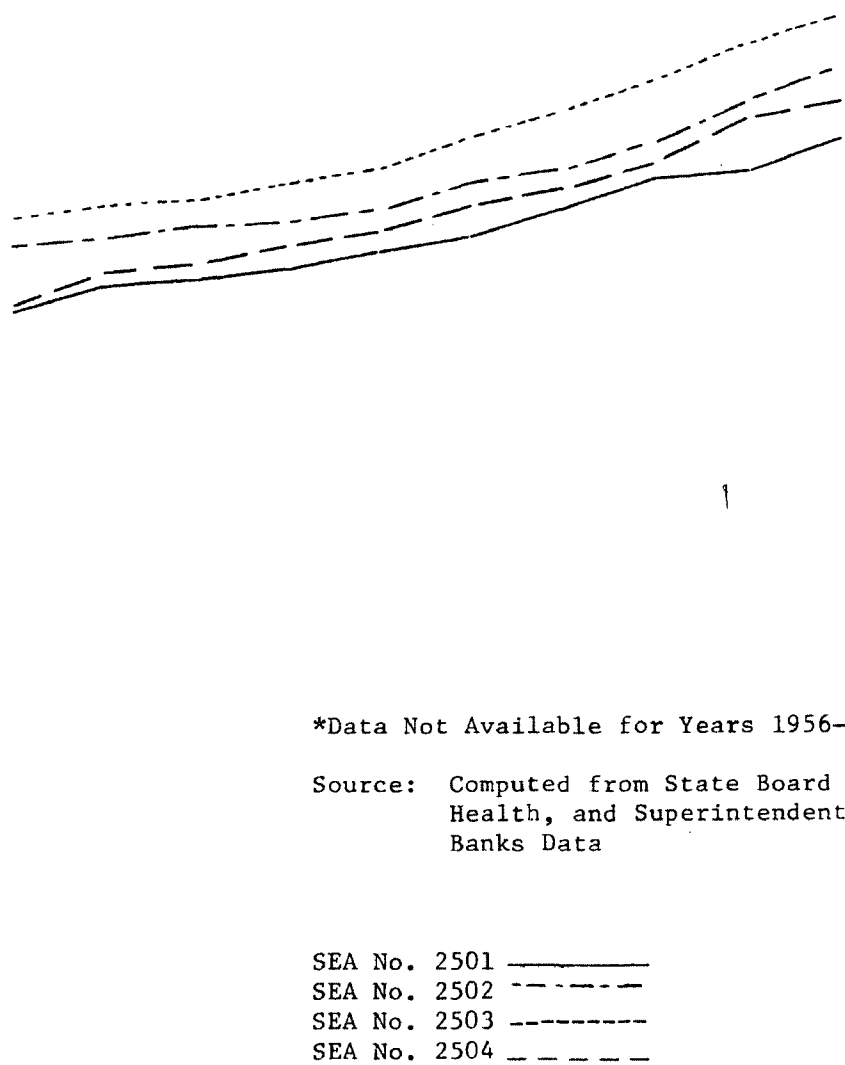
Source: Computed from State Board of
Health, and Superintendent of
Banks Data

SEA No. 2501 —————
SEA No. 2502 - - - - -
SEA No. 2503 - - - - -
SEA No. 2504 - - - - -

(Semi-log Plot)

1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967

Years



The SEA's or State Economic Areas are areas of the State of Montana, i.e., counties, that have been grouped according to their similarities in economic structure. A State Economic Area has been defined by the Bureau of the Census as, "a county or group of counties within a state which are homogeneous in their general socio-economic characteristics".¹³

Figure No. 1 indicates the four State Economic Areas of Montana and their geographic location within the State. Table No. 1 lists the counties in the four SEA's of Montana. The data supplied in Graph No. 4 indicate the per capita growth of banking resources in these State Economic Areas. The per capita resource growth of SEA No. 2503¹⁴ has significantly exceeded the growth rate of the other three areas. This can be attributed to the growth of Billings as one of the more important economic centers of the state during the ten-year period indicated on the graph. The growth of Billings and industry in Billings has affected the growth of this State Economic Area.

The other three areas have increased their banking resources at somewhat slower rates than Area No. 2503. As can be observed, all areas of the state have consistently increased their absolute growth rate.

The growth rate of Area No. 2502, which encompasses the vast prairie regions of the state in which the agricultural industry is

¹³U.S., Bureau of the Census, as cited in, Bank Operating Statistics - 1967, Federal Deposit Insurance Corporation.

¹⁴The prefix "25" of the four areas is indicative of Montana. Each state has been assigned such a prefix number.

TABLE NO. 1

ECONOMIC AREAS OF THE STATE OF MONTANA

No. 2501

Beaverhead
Broadwater
Deer Lodge
Flathead
Gallatin
Granite
Jefferson
Lake
Lewis and Clark
Lincoln
Madison
Meagher
Mineral
Missoula
Park
Powell
Ravalli
Sanders
Silver Box

No. 2502

Blaine
Cascade
Choteau
Daniels
Dawson
Fallon
Fergus
Glacier
Hill
Judith Basin
Liberty
McCone
Phillips
Pondera
Prairie
Richland
Roosevelt
Sheridan
Teton
Toole
Valley
Wibaux

No. 2503

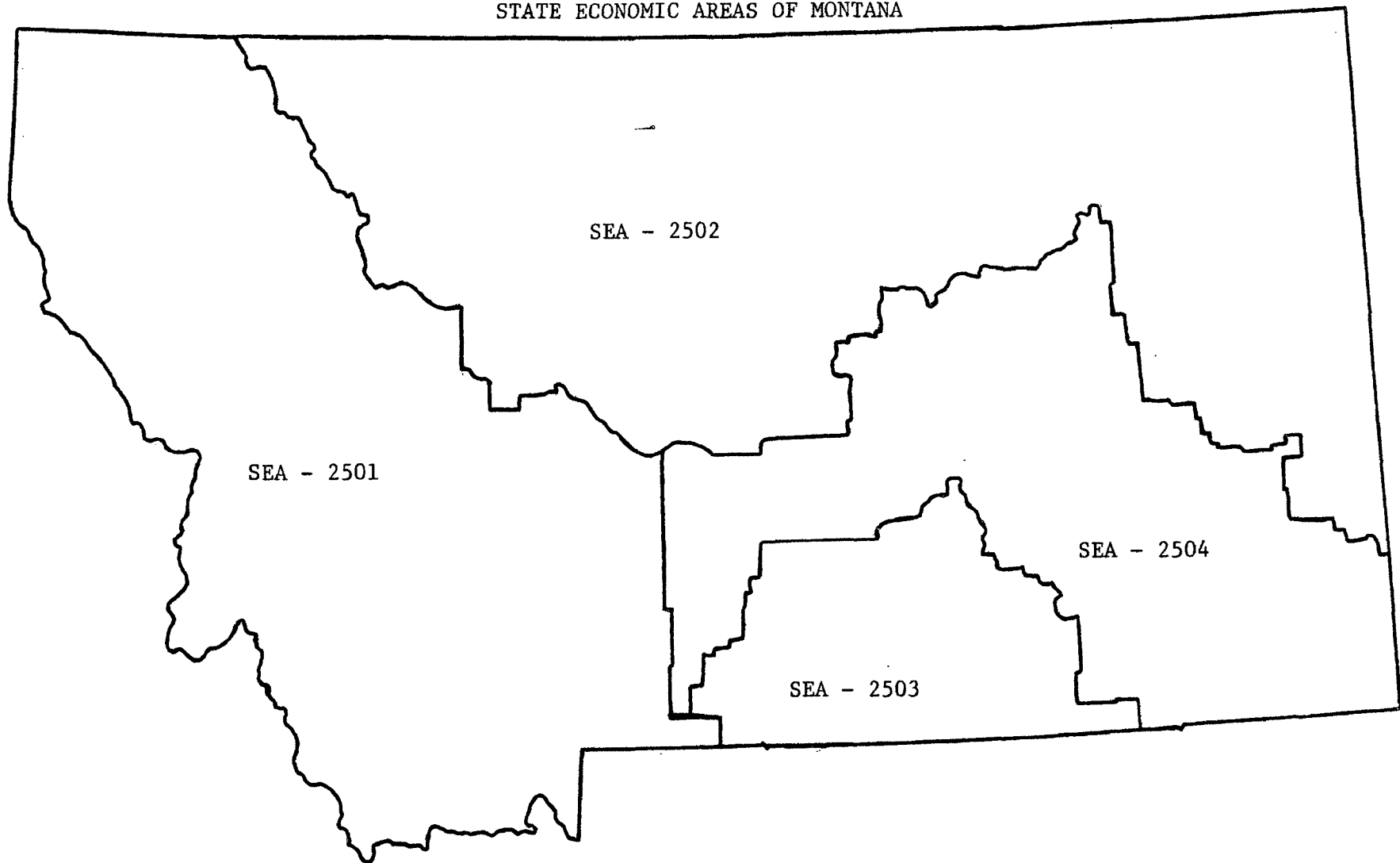
Big Horn
Carbon
Stillwater
Yellowstone

No. 2504

Carter
Custer
Garfield
Golden Valley
Musselshell
Petroleum
Powder River
Rosebud
Sweet Grass
Treasure
Wheatland

FIGURE NO. 1

STATE ECONOMIC AREAS OF MONTANA



the mainstay of the region, resulted in the establishment of seven new banks during the period December 31, 1958 to December 31, 1967. Area No. 2501, primarily the forested region of the state established eight new banks during this same time period. Again indicative of the growth of Billings as a metropolitan area is that Area No. 2503, which grew the most in terms of total resources, established two new banks during this ten-year period. Area No. 2504 established one new bank during this period.¹⁵

Graph No. 5 illustrates the growth that savings and loan associations and credit unions have experienced since 1956, the base year of the illustration. Credit unions have experienced a phenomenal rate of growth of resources in Montana. The growth of banking resources on the other hand has been steady and consistent.

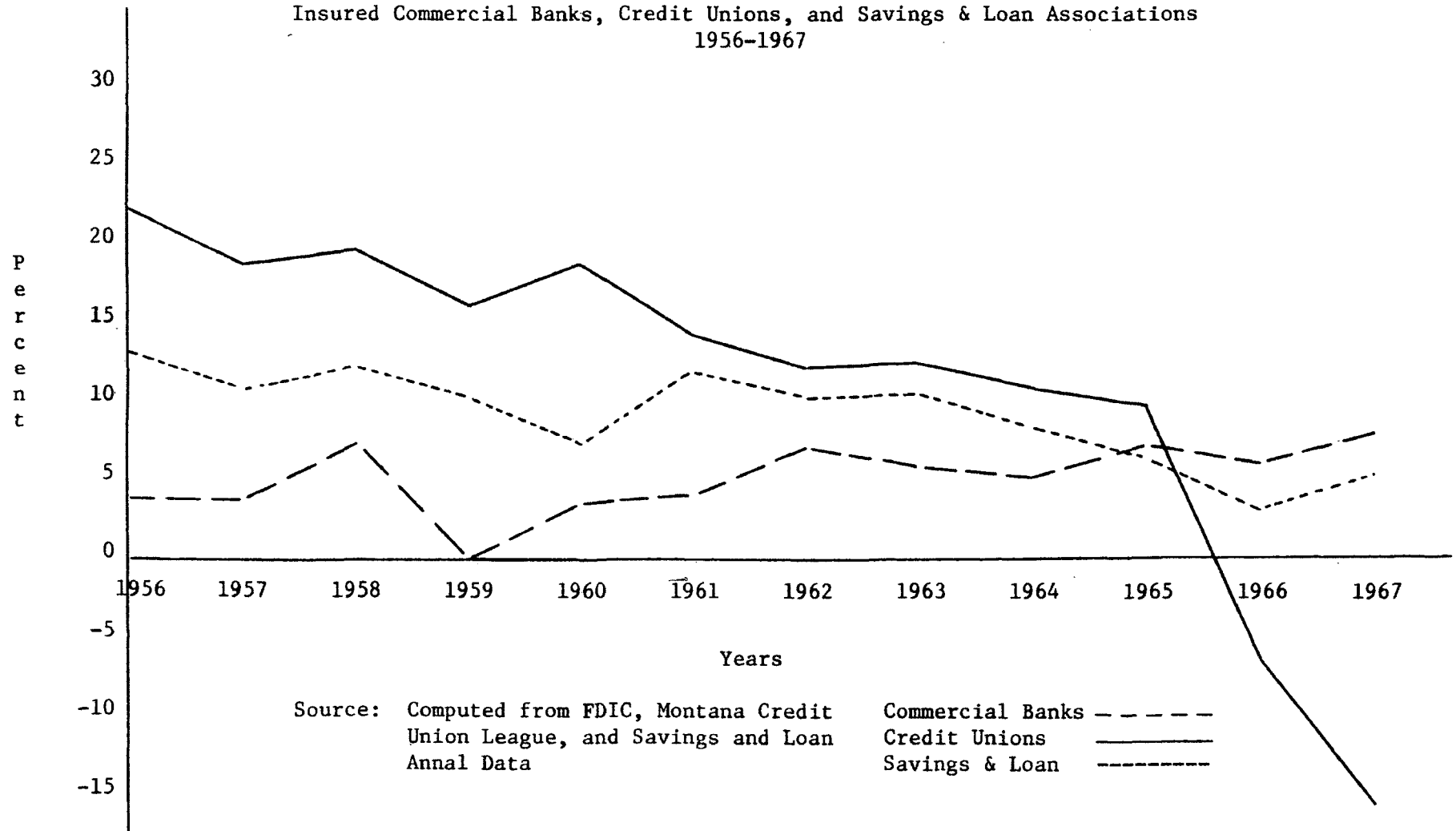
Turning to Graph No. 6 it can be seen that although credit unions and savings and loan associations have been outgrowing commercial banks in terms of annual relative increases in resources, they have been doing so at a steadily decreasing rate. The annual percentage increase in resources of savings and loan associations fell below that of commercial banks in 1965 as did the relative increase of resources for credit unions in 1966.

In 1956 resources of all Montana credit unions increased by more than 22% over the previous year. The increase for savings and

¹⁵Calculated from data supplied by the State of Montana, Office of the Superintendent of Banks.

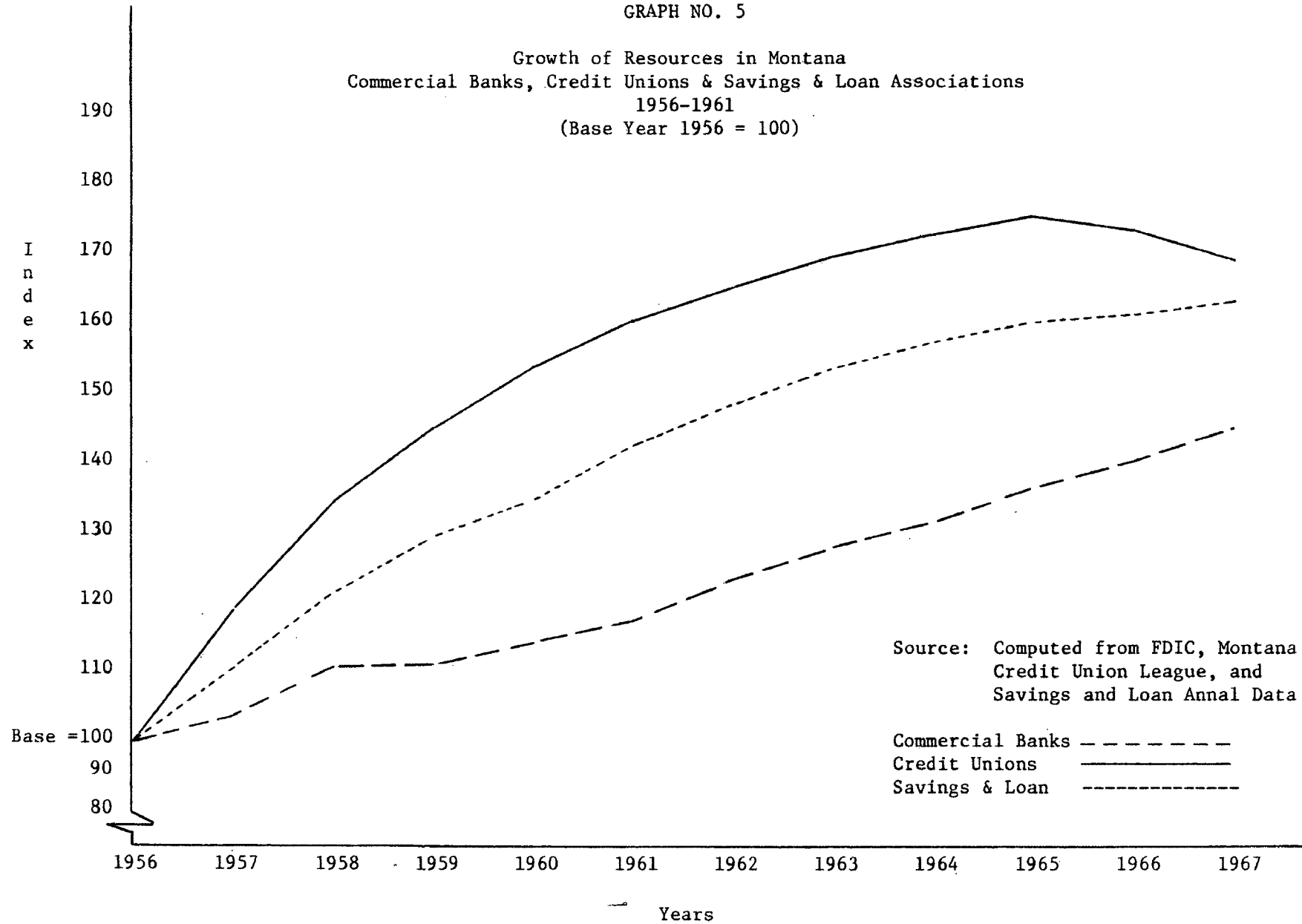
GRAPH NO. 6

Percent Increases in Resources
Insured Commercial Banks, Credit Unions, and Savings & Loan Associations
1956-1967



GRAPH NO. 5

Growth of Resources in Montana
Commercial Banks, Credit Unions & Savings & Loan Associations
1956-1961
(Base Year 1956 = 100)



loan institutions was over 13%, while the percentage increase in resources for commercial banks was less than 4%. See below.

Percent Increase in Assets in Montana

| | <u>Credit Unions</u> | <u>Savings and Loan Associations</u> | <u>Commercial Banks</u> |
|------|----------------------|--|-----------------------------|
| 1967 | (15.77)% | 5.10% | 10.3% |
| 1966 | (6.47) | 3.03 | 6.6 |
| 1965 | 9.73 | 6.45 | 7.9 |
| 1964 | 10.76 | 8.37 | 9.7 |
| 1963 | 12.50 | 10.40 | 5.4 |
| 1962 | 12.33 | 10.17 | 6.4 |
| 1961 | 14.23 | 11.93 | 7.3 |
| 1960 | 18.75 | 7.42 | 2.0 |
| 1959 | 16.11 | 10.27 | 2.3 |
| 1958 | 19.72 | 12.26 | 6.8 |
| 1957 | 18.97 | 10.84 | 2.8 |
| 1956 | 22.37 | 13.21 | 3.6 |

The information in this section indicates that the growth of the commercial banking industry in Montana has been hampered by the substantial growth of savings and loan associations and credit unions. Although the state has kept pace in terms of resource growth, when compared to the neighbor state of Idaho, the data concerning the growth of resources in the four State Economic Areas indicate that industry substantially increases growth of banking resources as indicated in SEA No. 2503. It can therefore be stated that although the growth of banking resources has kept pace with at least one state of similar economic composition, the economic structure of Montana will inhibit the growth of banking and hold to a rate somewhat below the national growth rate of banking resources. Also, there is no evidence that

Montana's unit banking structure has restricted the growth of banking resources.

CHAPTER III

PROFITABILITY

The level of bank earnings and profits provides a good indication of the stability and strength of the banking business. When banks find that their earnings are inadequate, they are forced into high-risk lending and consequently into positions of inadequate liquidity. Moreover, the attraction of new capital is difficult. The banks find themselves unable to acquire adequate capital either by reinvesting earnings or by new capital issues.¹⁶ Earnings on bank stocks must be comparable--in amount or stability, or, both--with profits realized in other industries, if banking is to attract and hold sufficient new capital to serve the expanding credit needs of a growing economy.¹⁷

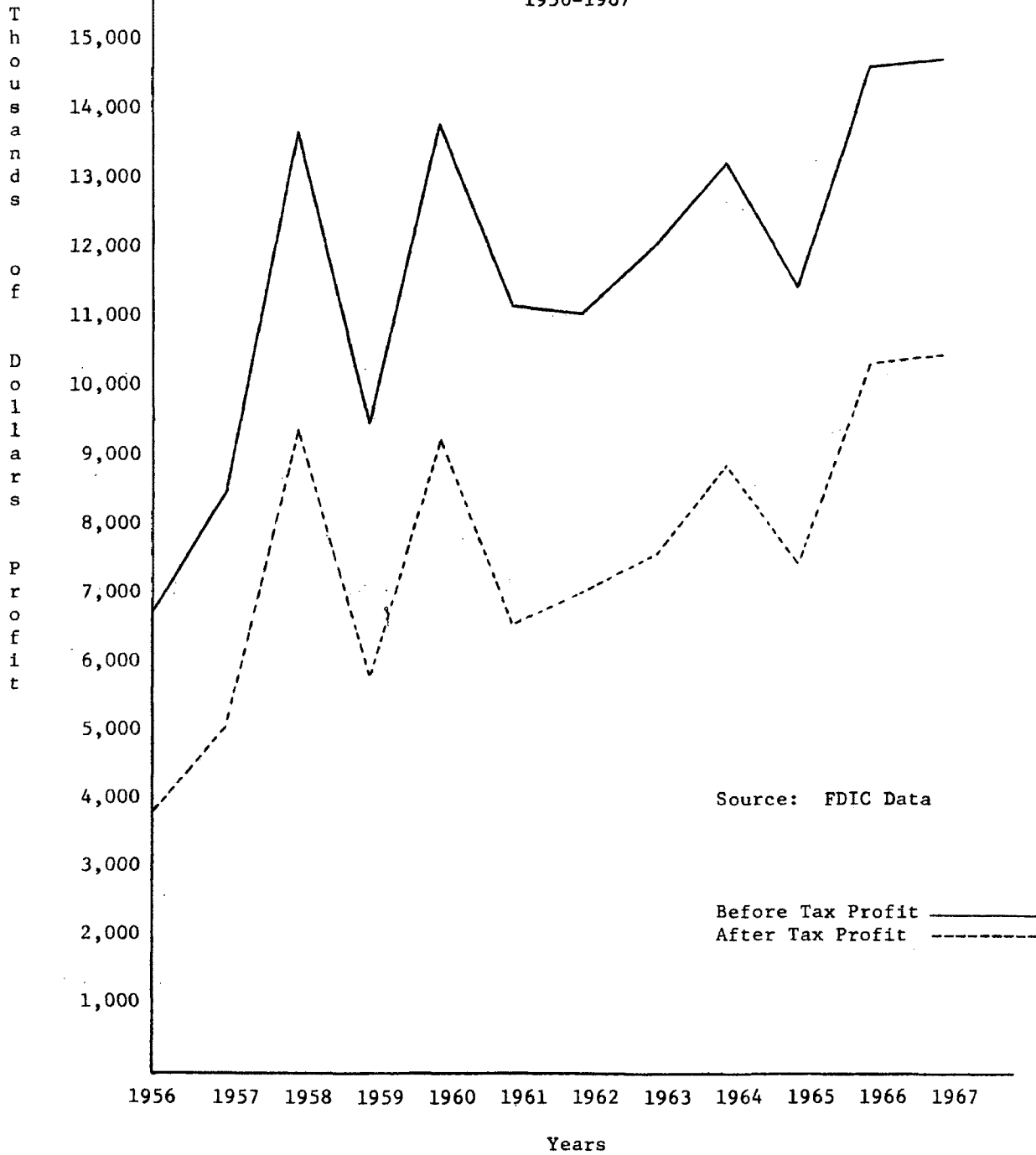
Over the twelve year period under study, banking in Montana has been relatively profitable. (See Graph No. 7) There has been a general uptrend over this period of time although the growth has been erratic. For the year 1956 all Montana banks earned a total profit of \$6,748,000 before taxes. At the end of 1967 all Montana banks earned a profit of \$14,743,000 before taxes, a marked increase over the

¹⁶Koenker.

¹⁷American Bankers Association, The Commercial Banking Industry, A Monograph Prepared for the Commission on Money and Credit (Englewood Cliffs, N.J.: The American Bankers Association, 1962).

GRAPH NO. 7

Income of Insured Commercial Banks
State of Montana
1956-1967



twelve year period.¹⁸ At the same time banking profits in Idaho increased from \$4,091,000 in 1956 to \$11,253,000 in 1967 on a before tax basis.¹⁹

Table No. 2 indicates the ratios of net profits after taxes of insured banks for Montana, Idaho and the United States. This ratio is the most inclusive measure of the prices charged by commercial banks for their services. The ratio is determined chiefly by the average rates of interest received on loans and investment of the banks.²⁰ As the table indicates bank profits are very small when related to total capital as a result of the very high degree of leverage resulting from the small percentage of capital to total assets.

On both an asset base and a capital base, Montana banks have been considerably more profitable than all United States banks and banks of Idaho.

Although there may be several reasons accounting for this, two of the more important reasons probably are the smaller percentage of assets in non-earning cash accounts in Montana banks, and the higher interest rates earned on bank loans.²¹

¹⁸U.S., Federal Deposit Insurance Corporation, Assets Liabilities and Capital Accounts.

¹⁹Ibid.

²⁰American Bankers Association, The Commercial Banking Industry.

²¹In the State of Montana the percentage of assets in non-earning cash accounts was 12.8%, in Idaho 14.2%, and in the United States 15.2% at December 31, 1967. The average rate of return of bank loans in Montana during 1967 was 7.01% while in Idaho the average for the year was 6.93% and for the United States the average was 6.48%. Also the average rate of return held on securities other than U.S. Government's was 3.41% for Idaho, 3.45% for the United States and 3.77% for Montana.

TABLE NO. 2

RATIOS OF NET PROFITS AFTER TAXES OF INSURED BANKS

| Year | United States | |
|------|-------------------|------------------|
| | Per \$100 Capital | Per \$100 Assets |
| 1956 | \$ 6.28 | \$.48 |
| 1957 | 6.68 | .53 |
| 1958 | 7.79 | .61 |
| 1959 | 6.47 | .52 |
| 1960 | 8.14 | .67 |
| 1961 | 7.58 | .61 |
| 1962 | 7.12 | .58 |
| 1963 | 7.18 | .59 |
| 1964 | 7.07 | .56 |
| 1965 | 7.17 | .57 |
| 1966 | 8.74 | .57 |
| 1967 | 9.23 | .60 |

| Year | Montana | |
|------|-------------------|------------------|
| | Per \$100 Capital | Per \$100 Assets |
| 1956 | \$ 9.31 | \$.49 |
| 1957 | 11.48 | .63 |
| 1958 | 18.25 | 1.07 |
| 1959 | 10.41 | .66 |
| 1960 | 14.71 | 1.02 |
| 1961 | 9.72 | .69 |
| 1962 | 9.63 | .69 |
| 1963 | 9.60 | .69 |
| 1964 | 10.84 | .78 |
| 1965 | 8.32 | .60 |
| 1966 | 10.89 | .79 |
| 1967 | 10.42 | .74 |

| Year | Idaho | |
|------|-------------------|------------------|
| | Per \$100 Capital | Per \$100 Assets |
| 1956 | \$ 5.35 | \$.30 |
| 1957 | 8.95 | .52 |
| 1958 | 19.59 | 1.21 |
| 1959 | 4.68 | .30 |
| 1960 | 16.71 | 1.19 |
| 1961 | 9.32 | .65 |
| 1962 | 10.38 | .77 |
| 1963 | 11.15 | .82 |
| 1964 | 10.34 | .77 |
| 1965 | 11.10 | .80 |
| 1966 | 9.43 | .68 |
| 1967 | 9.75 | .67 |

Source: FDIC Data

A comparative analysis of the earnings and profits of Montana, Idaho, and U.S. banks for the year 1967, the final year of the period studied, is given in the following pages.

The data in Table No. 3 reveal the extent to which banks in each of four different size classifications and in the four State Economic Areas of Montana derive their earnings from U.S. Government obligations, other securities, loans, deposit fees and other assorted sources. An examination of the table will reveal that all banks receive the largest share of their income from loans. This is also true for all banks in the four State Economic Areas of Montana, however, the proportions are greater for the larger banks. There are two reasons for this. First the larger banks hold a greater percentage of their total assets in loans. Second, even though the effective rate of interest on loans for the smaller banks tends to be higher, the lower effective rate of interest for the larger banks is offset by the substantially greater proportion of earnings assets invested in loans. This information is revealed in Table No. 4 and in the information on page 28.

One of the main reasons for the largest banks having larger loan volumes would probably be their greater, i.e., more populated service area. The smaller banks are generally located in the small towns of the state and can only expect to serve a limited populous. The small and large banks also differ in the types of loans which they make, which results in substantial differences in the rates of return received by the banks. The smallest banks in the state would tend to make a higher proportion of small loans which have a somewhat

TABLE NO. 3
SOURCES OF CURRENT OPERATING EARNINGS OF MONTANA
BANKS BY SIZE GROUPS (IN MILLIONS) 1967

| Total Current Operating Earnings | <u>All Banks</u> | <u>Under 5</u> | <u>5-10</u> | <u>10-25</u> | <u>25-100</u> | <u>Over 100*</u> | <u>All Banks In SEA 2501</u> | <u>All Banks In SEA 2502</u> | <u>All Banks In SEA 2503</u> | <u>All Banks In SEA 2504</u> |
|-------------------------------------|----------------------|--------------------|-------------|--------------|---------------|----------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Percent Derived From: | | | | | | | | | | |
| Int. on U.S. Governments | 19.6 | 23.3 | 17.8 | 15.9 | 14.0 | * | 18.1 | 21.2 | 15.3 | 24.4 |
| Int. on Other Securities | 9.1 | 8.8 | 10.7 | 8.4 | 6.9 | * | 7.1 | 10.6 | 10.6 | 8.7 |
| Income on Loans | 60.6 | 57.5 | 60.4 | 66.3 | 67.0 | * | 62.4 | 58.9 | 63.5 | 57.3 |
| Service Charges on | | | | | | | | | | |
| Deposits | 6.6 | 6.6 | 6.6 | 6.4 | 6.7 | * | 7.9 | 5.8 | 5.9 | 5.7 |
| Other Charges and Fees | 2.8 | 3.1 | 2.7 | 1.9 | 3.0 | * | 3.2 | 2.2 | 3.5 | 2.8 |
| Trust Department Income | .3 | - | .2 | .2 | 1.8 | * | .4 | .2 | .3 | - |
| All Other Revenue | <u>1.0</u> | <u>.8</u> | <u>1.6</u> | <u>.9</u> | <u>.7</u> | * | <u>.9</u> | <u>1.2</u> | <u>.9</u> | <u>1.0</u> |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | | 100.0 | 100.0 | 100.0 | 100.0 |

*Not Available

Source: Bank Operating Statistics - 1967, FDIC

higher rate of interest than large loans. It is also true that a great proportion of the small banks in Montana are located in one-bank towns. Therefore they serve a market area which is limited in bank competition and are able to charge higher interest rates on their loans.

The data in Table No. 4 indicate what would be generally expected as the type of loans made by the large and small banks of the state, along with the principal types of loans made by banks in the State Economic Areas. The principal type of loan made by small banks is agricultural with loans to individuals and for real estate following. The larger banks in the state provide loans principally for real estate with loans to individuals and for commerce and industry following. An examination of the table will show a definite trend in the percentage composition of loan types as the deposits or categories become larger. This again points to the fact that the large banks are located in the large industrial cities of the state while the smaller banks are located in small one-bank agrarian centered towns.

An examination of the composition of loans and discounts in the SEA's of Montana will reveal the nature of the principal types of loans made in each area. Note that Areas 2501 and 2503 are the principal industrial areas of the state while Areas 2502 and 2504 are the principal agricultural areas.

The average loan rate for banks in each size classification in Montana is very near the same as for banks in Idaho but considerably higher than for all U.S. banks as indicated below:

TABLE NO. 4

COMPOSITION OF LOAN ACCOUNTS FOR DIFFERENT
SIZE CLASSIFICATIONS OF MONTANA BANKS-1967

| Percent of Total Assets in Loans and Discounts | <u>Banks With Total Deposits (In Millions) 1967</u> | | | | | | <u>State Economic Areas</u> | | | |
|--|---|--------------------|-------------|--------------|---------------|---------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| | <u>All Banks</u> | <u>Under 5</u> | <u>5-10</u> | <u>10-25</u> | <u>25-100</u> | <u>Over 100</u> | <u>All Banks In SEA 2501</u> | <u>All Banks In SEA 2502</u> | <u>All Banks In SEA 2503</u> | <u>All Banks In SEA 2504</u> |
| Net | 45.4 | 41.9 | 46.0 | 49.5 | 53.0 | * | 47.7 | 42.6 | 50.5 | 41.9 |
| Commercial and Industrial | 7.7 | 6.4 | 7.1 | 8.6 | 13.3 | * | 9.7 | 6.6 | 7.6 | 4.0 |
| Agricultural | 16.1 | 18.2 | 16.3 | 15.9 | 7.4 | * | 9.5 | 19.0 | 22.8 | 23.4 |
| Real Estate | 10.5 | 8.1 | 11.4 | 12.5 | 15.4 | * | 12.5 | 9.3 | 16.3 | 7.9 |
| To Individuals | 10.8 | 9.1 | 11.1 | 12.7 | 14.8 | * | 15.7 | 7.8 | 8.8 | 6.4 |
| Others | .9 | .4 | .8 | .9 | 3.2 | * | 1.0 | .6 | 1.6 | 1.1 |

*Not Available

Source: Bank Operating Statistics - 1967, FDIC

Income on Loans Per \$100 of Loans - 1967

| Banks With Deposits Of: | Montana ²² Banks | Idaho ²³ Banks | All U.S. ²⁴ Banks |
|---------------------------|--------------------------------|------------------------------|---------------------------------|
| Under \$5,000,000 | \$7.18 | \$7.20 | \$6.85 |
| 5,000,000 to 10,000,000 | 6.85 | 6.89 | 6.53 |
| 10,000,000 to 25,000,000 | 7.00 | 6.63 | 6.42 |
| 25,000,000 to 100,000,000 | 6.77 | N/A | 6.30 |
| Over 100,000,000 | N/A | 6.77 | 6.00 |

The similarity between returns on loans in Montana and Idaho can be contributed to the general similarity of the composition of the loan accounts. The significant difference between Montana and all U.S. banks can be attributed to the dissimilarity in the composition of these loan accounts. All U.S. banks have a large percentage of total loans in the low rate of return real estate and commercial and industrial loans as is indicated below:

Percentage of Total Assets in Loans and Discounts

| | Montana | Idaho | U.S.A. |
|-------------------------|---------|-------|--------|
| Net | 45.4 | 50.4 | 52.5 |
| Commercial & Industrial | 7.7 | 10.3 | 19.6 |
| Agricultural | 16.1 | 20.3 | 2.1 |
| Real Estate | 10.5 | 7.0 | 13.0 |
| To Individuals | 10.8 | 10.3 | 3.3 |
| Others | .9 | 2.9 | 16.8 |

²²Bank Operating Statistics - 1967.

²³Ibid.

²⁴Annual Report, Federal Deposit Insurance Corporation, 1967.

Smaller banks, when grouped according to size groups, also tend to earn a higher rate of return on securities than do the larger banks. This is revealed in the following tabulation which also provides information on comparable rates of return on securities for Idaho and all U.S. banks.

Income on Securities Per \$100 of Securities - 1967

| Banks With Deposits Of: | Montana ²⁵ Banks | Idaho ²⁶ Banks | All U.S. ²⁷ Banks |
|---------------------------|--------------------------------|------------------------------|---------------------------------|
| Under \$5,000,000 | \$4.73 | \$4.73 | \$2.58 |
| 5,000,000 to 10,000,000 | 3.12 | 2.73 | 2.86 |
| 10,000,000 to 25,000,000 | 2.80 | 2.47 | 2.94 |
| 25,000,000 to 100,000,000 | 2.86 | N/A | 3.03 |
| Over 100,000,000 | N/A | 2.72 | 3.20 |

Again there is the similarity between Montana and Idaho in the different size classifications. Although Montana banks generally have a higher average rate of return. The average rate of return for banks in Montana also generally exceeds that earned by all U.S. banks. This higher income on securities obtained by the smaller banks (there are more banks in the small groups in Montana than in Idaho) is partially attributable to their generally holding a smaller portion of very short-term securities. Larger banks tend to hold smaller

²⁵Bank Operating Statistics - 1967.

²⁶Ibid.

²⁷Annual Report, FDIC, 1967.

proportions of cash and offset this with somewhat more adequate secondary reserves.²⁸

The data in Table No. 5 provide available information on the level of net operating earnings in 1967 for banks in the various size classifications of Montana. In this table the data are presented as percentages of total assets since this is one measure of the relative size of bank earnings.

From this tabulation it can be seen that the smaller banks in Montana, because of their high expense ratios, have lower net current earnings than do the larger banks. This is not true for either Idaho banks or all U.S. banks. This feature of high expense ratios in small Montana banks can perhaps best be explained by the great number of small banks with resources under \$5,000,000 in the state, 57 in 1967. These small banks must still provide the basic banking services to their customers despite their size.

Net current operating earnings must be adjusted for recoveries, transfers, and security profits, and losses and charge-offs before net profits can be computed. An examination of the data in Table 117, page 196 of the 1967 Annual Report of the FDIC reveals that charge-offs were about 20 cents in excess of recoveries and security profits per \$100 of assets for banks in all size categories. Therefore these types of adjustments have no significant effect on the net profit position of small compared to large banks.

²⁸Koenker

TABLE NO. 5

RATIO OF EARNINGS AND PROFITS PER \$100 OF TOTAL ASSETS
INSURED COMMERCIAL BANKS IN MONTANA, IDAHO AND U.S., 1967

| | | Banks With Total Deposits (In Millions) | | | | | | | | | | | | | | |
|---------------------------------------|--|---|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|
| | | Under 5 | | | 5-10 | | | 10-25 | | | 25-100 | | | Over \$100 | | |
| | | <u>Mont</u> | <u>Idaho</u> | <u>U.S.</u> | <u>Mont</u> | <u>Idaho</u> | <u>U.S.</u> | <u>Mont</u> | <u>Idaho</u> | <u>U.S.</u> | <u>Mont</u> | <u>Idaho</u> | <u>U.S.</u> | <u>Mont</u> | <u>Idaho</u> | <u>U.S.</u> |
| Amounts Per \$100 of Total Assets: | | | | | | | | | | | | | | | | |
| Operating Revenue | | \$5.19 | 5.32 | 5.07 | \$5.31 | 5.33 | 5.08 | \$5.28 | 4.75 | 5.08 | \$5.36 | N/A | 5.06 | N/A | - | - |
| Current Operating Expenses | | 4.23 | 3.96 | 3.81 | 3.13 | 4.21 | 3.91 | 4.12 | 3.45 | 3.94 | 4.12 | N/A | 3.96 | N/A | - | - |
| Net Operating Earnings | | .96 | 1.36 | 1.26 | 1.18 | 1.12 | 1.17 | 1.16 | 1.30 | 1.14 | 1.24 | N/A | 1.10 | N/A | - | - |
| Net Income Before Taxes | | .88 | 1.08 | 1.11 | .99 | .43 | .92 | 1.06 | 1.01 | .91 | 1.04 | N/A | .96 | N/A | - | - |
| Net Income After Taxes | | .73 | .82 | .88 | .77 | .25 | .70 | .73 | .56 | .68 | .69 | N/A | .67 | N/A | - | - |

The banks in the smallest size classification have a tax advantage over the larger banks. Income taxes took only 15 cents per dollar of net profits before taxes for the smallest size banks while the largest banks were losing 25 cents per dollar of before tax net profit. The tax rate structure therefore benefits the small banks and brings their after tax rate of profitability very close to that of the large banks.²⁹

Further examination of Table No. 5 reveals that Montana banks are generally more profitable than banks in Idaho and all U.S. banks. This may be due to their greater freedom from competition due to their isolation in wide spread parts of the state.

The preceding discussion of rates of profitability has been based on the relationship of profits to total assets as the basis of comparison. This basis is the most appropriate when profitability is thought of as a measure of efficiency or as an indicator of relative monopoly power. From the point of view of the investor and of the effect on bank capital, a more appropriate basis of comparison is the ratio of profit to total capital accounts. When this ratio is used there emerges an entirely different picture of the relative profitability of small and large banks. This can be attributed to the fact that large banks tend to have significantly lower capital to asset ratios than do the small banks. Therefore, even though they may earn lower rate of profit per dollar of assets,

²⁹Calculated from data in Table No. 5

they have higher rates per dollar of capital.³⁰ This is shown in Table No. 6.

A close examination of Table No. 6 will reveal the substantial differences which exist in current operating earnings (on the basis of total capital accounts) between the large and small banks. This is due mainly to the greater leverage (assets to capital ratio) which large banks have over small banks. The difference is greatest for Montana banks and reflects the small capital base of most banks in Montana.

The fact that large banks are subject to a higher tax rate on income than are small banks has not been enough to upset the pattern of higher rates of profitability for large banks on the after tax basis.

Montana banks also pay a substantially greater proportion of their income in dividends as is shown in Table No. 6.

The comparatively higher rate of profitability of Montana banks in the assorted size classifications relative to all Idaho banks and all U.S. banks in the same size classification can best be illustrated as follows:

³⁰Koenker

TABLE NO. 6

RATIO OF EARNINGS, PROFITS AND DIVIDENDS PER \$100 OF CAPITAL ACCOUNTS

INSURED COMMERCIAL BANKS IN MONTANA, IDAHO AND U.S., 1967

Banks With Total Deposits (In Millions)

| | Under 5 | | | 5-10 | | | 10-25 | | | 25-100 | | | Over \$100 | | |
|----------------------------------|---------|-------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------|------------|-------|------|
| | Mont | Idaho | U.S. | Mont | Idaho | U.S. | Mont | Idaho | U.S. | Mont | Idaho | U.S. | Mont | Idaho | U.S. |
| Amounts Per \$100 of Capital: | | | | | | | | | | | | | | | |
| Net Operating Earnings | \$12.11 | 14.64 | 11.58 | \$17.39 | 14.32 | 14.35 | \$17.74 | 17.62 | 14.96 | \$18.49 | N/A | 15.29 | N/A | | |
| Net Income Before Taxes | 11.23 | 11.26 | 10.09 | 14.21 | 6.99 | 11.28 | 16.12 | 13.25 | 11.89 | 15.23 | N/A | 12.49 | N/A | | |
| Net Income After Taxes | 9.27 | 8.38 | 7.94 | 11.25 | 4.44 | 8.58 | 11.12 | 7.45 | 8.87 | 10.03 | N/A | 9.29 | N/A | | |
| Cash Dividends Declared | 3.71 | 2.10 | 2.72 | 3.60 | 1.20 | 2.77 | 5.24 | 3.54 | 3.00 | 8.30 | N/A | 5.80 | N/A | - | - |

Percentage By Which Montana Banks Exceed Banks in Idaho

And the U.S. as to Net Operating Earnings Ratio³¹

| Banks With Deposits Of: | 1967 | | | |
|---------------------------|--------------|-------------|---------------|-------------|
| | Asset Basis | | Capital Basis | |
| | <u>Idaho</u> | <u>U.S.</u> | <u>Idaho</u> | <u>U.S.</u> |
| Under \$5,000,000 | (29.4) | (23.8) | (17.28) | 4.38 |
| 5,000,000 to 10,000,000 | 5.1 | .9 | 17.66 | 17.49 |
| 10,000,000 to 25,000,000 | (10.7) | 1.37 | .7 | 15.67 |
| 25,000,000 to 100,000,000 | N/A | 11.30 | N/A | 17.31 |
| Over 100,000,000 | - | - | - | - |

The above tabulation indicates that Montana banks generally have better net operating earnings ratios than all U.S. banks. When compared to the net current earnings ratios of Idaho banks they average approximately the same. Banks in the small size classifications do not fare as well as do the larger banks on the comparative basis. The difference in net operating earnings ratios when compared on an asset basis with U.S. banks is mainly due to expenses. The earnings on loans and investments is high for small banks (see pages 28 and 29) and large banks, however, the expense ratios of small banks offset the high rate earned.³² The large banks with their low expense ratios and relatively high average returns on loans and investments (as compared to all U.S. banks) substantially exceed the net operating earnings ratios of all U.S. banks.

³¹Calculated from data in Tables 5 and 6.

³²See Table No. 5.

On the capital basis Montana banks substantially exceed the net operating earnings rate of all U.S. banks. This can be attributed to the greater leverage which Montana banks enjoy, as previously mentioned.

This combination of higher earning capacity relative to assets and lower capitalization gives Montana banks a much better earnings advantage over all U.S. and Idaho banks in general, and especially for banks with deposits of more than \$5,000,000.

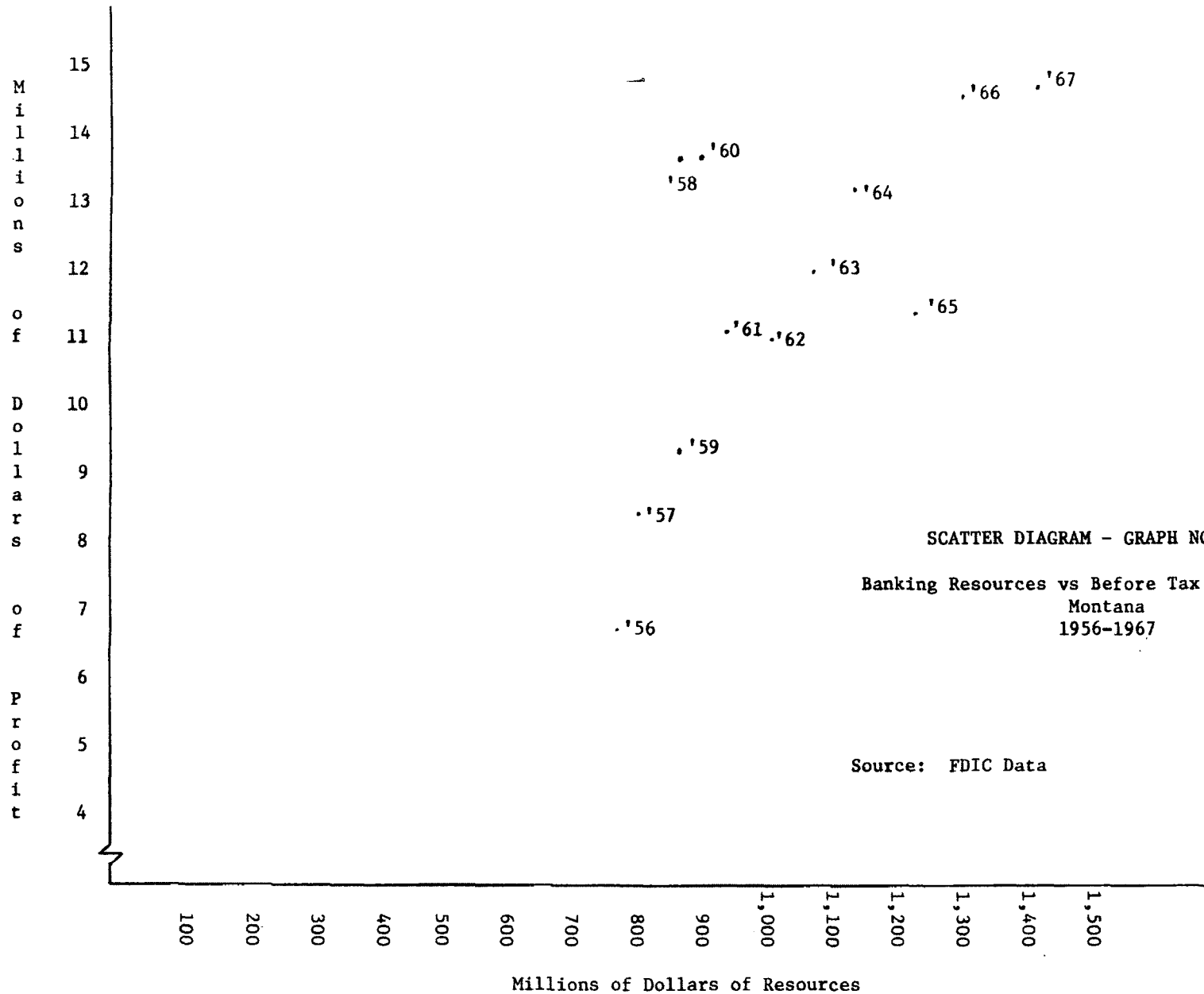
On an asset basis, Montana banks have a higher earning capacity than all U.S. banks and generally those banks of Idaho. The smaller banks in the state enjoy rates of profit very near the same as do the larger banks due to their relative monopoly positions and the progressive nature of the income tax.

The combination of higher earning capacity relative to assets and lower capitalization provide Montana banks with an envious profit position.

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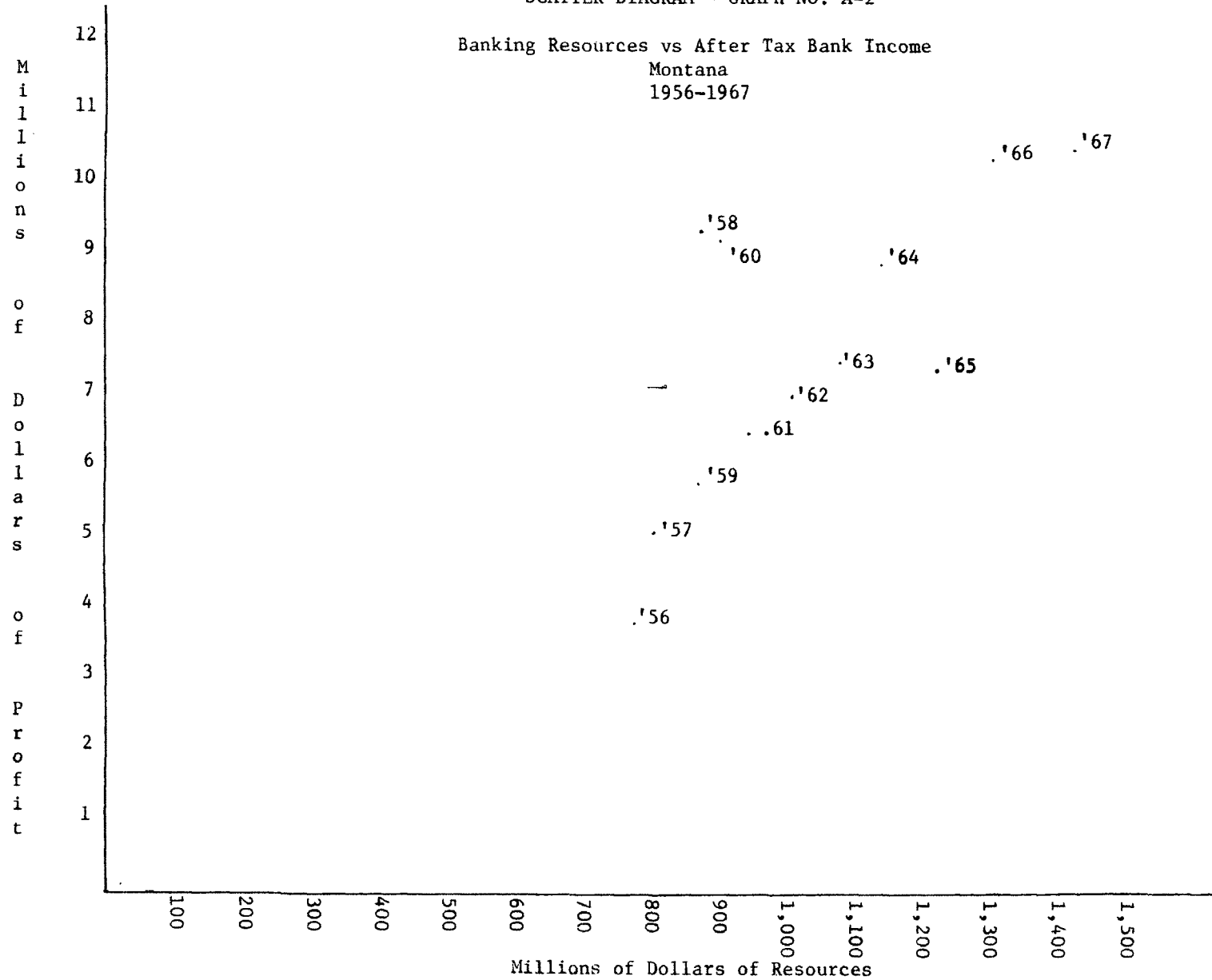
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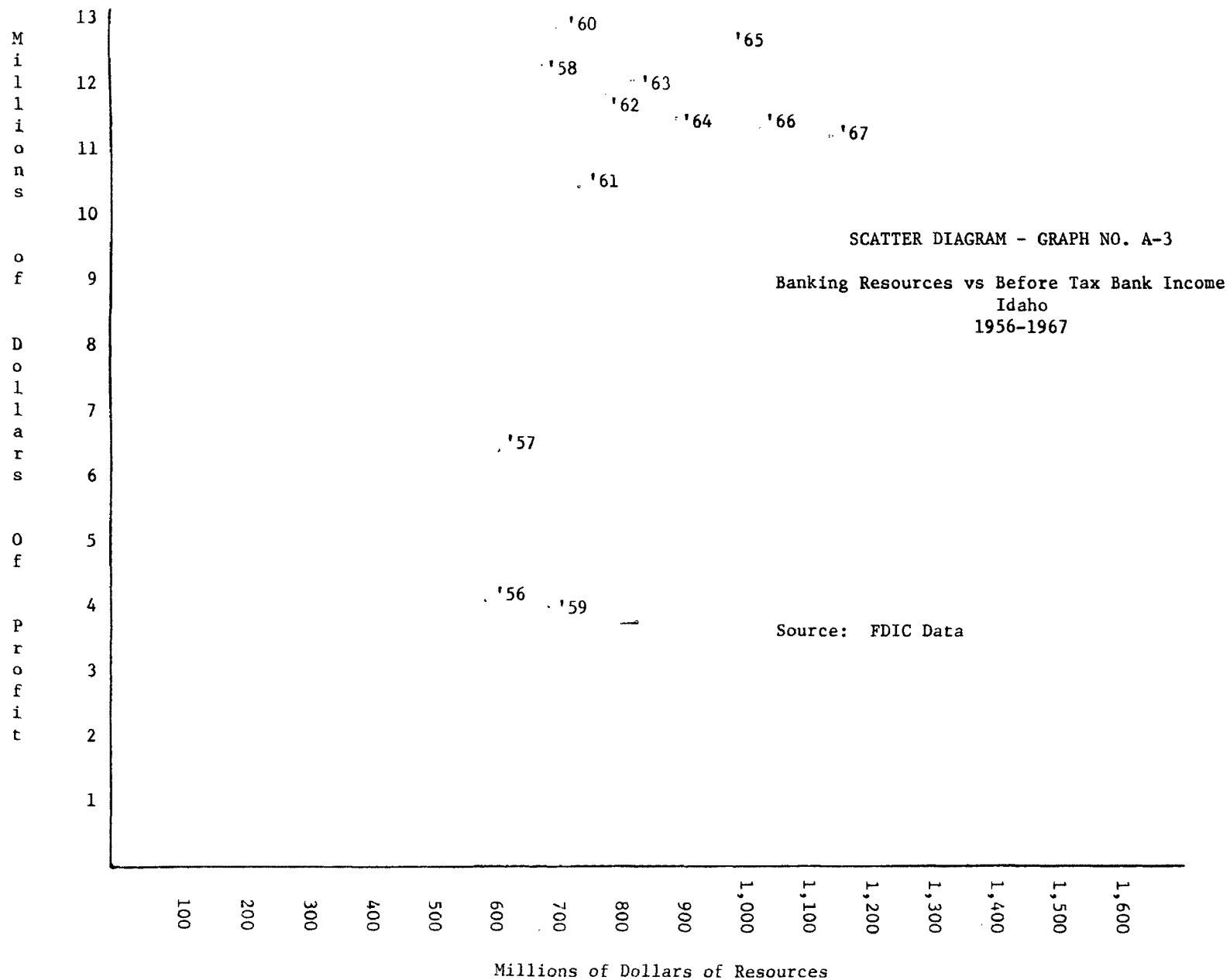
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SCATTER DIAGRAM - GRAPH NO. A-2

Banking Resources vs After Tax Bank Income
Montana
1956-1967





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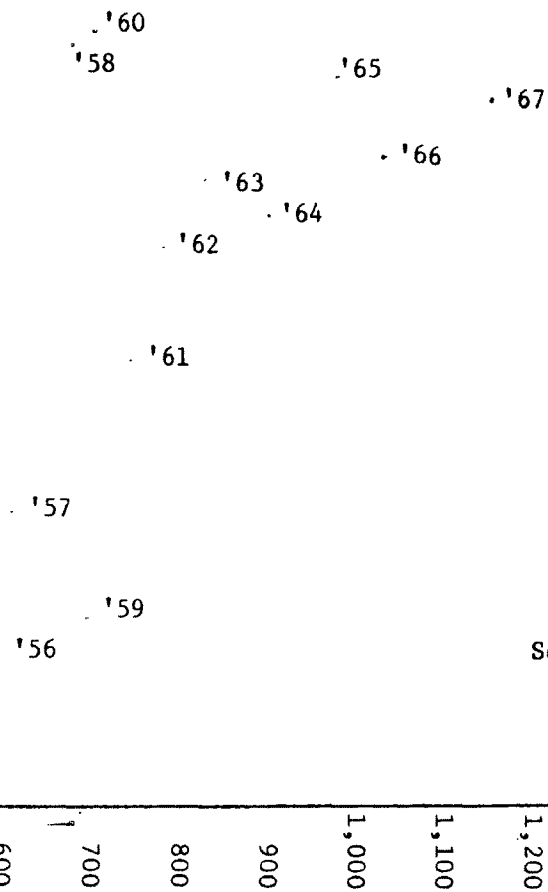
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SCATTER DIAGRAM - GRAPH NO. A-4

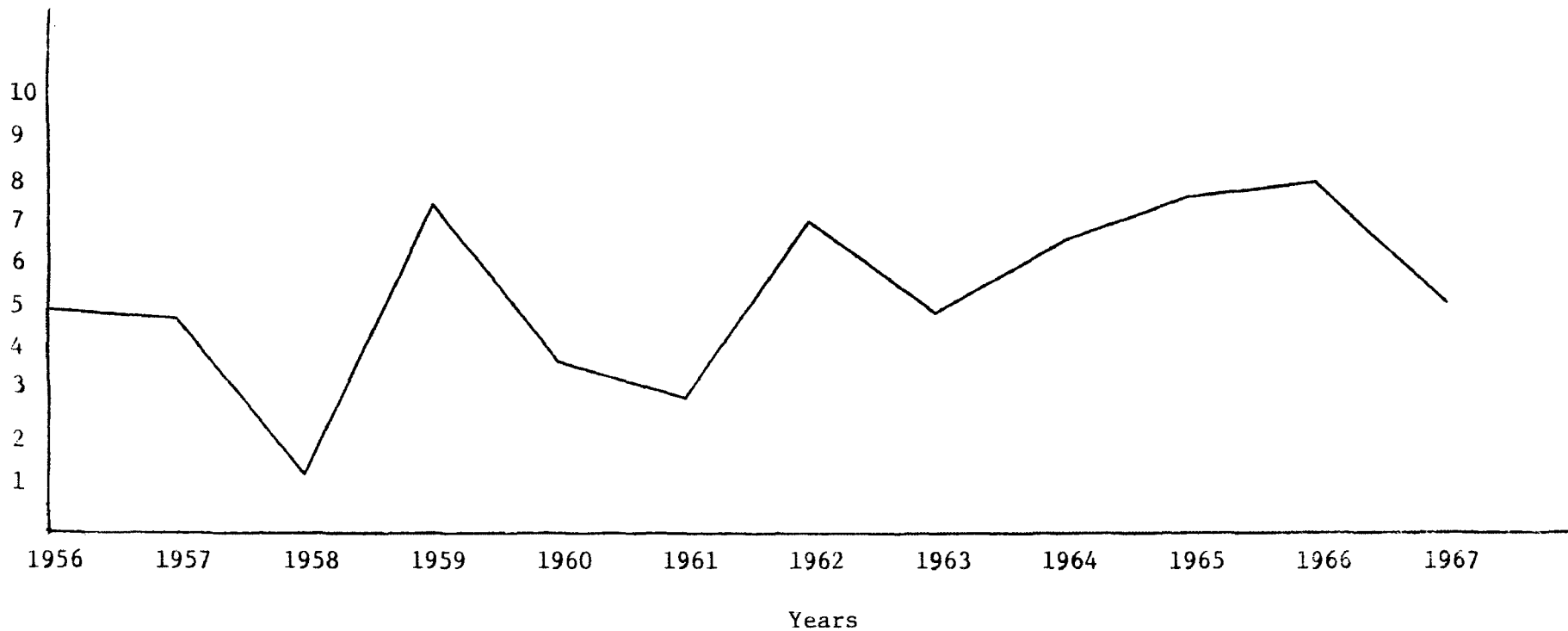
Banking Resources vs After Tax Bank Income
Idaho
1956-1967



Source: FDIC Data

GRAPH NO. A-5

Yearly Percentage Increases in Gross National Product (GNP)
1956-1967



Source: Computed from data in Business Statistics - 1968. Biennial Supplement
to the Survey of Current Business